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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/770,322	01/26/2001	Ronald E. Huffman	12373.16US01	7517
23552	7590	07/07/2005	EXAMINER	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			LEWIS, RALPH A	
		ART UNIT	PAPER NUMBER	
		3732		
DATE MAILED: 07/07/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/770,322	HUFFMAN, RONALD E.
	<b>Examiner</b> Ralph A. Lewis	<b>Art Unit</b> 3732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
 THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 04/27/2005.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1,2,4-10,12-31,33-43 and 51-55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 45 and 47-50 is/are allowed.
- 6) Claim(s) \_\_\_\_\_ is/are rejected.
- 7) Claim(s) 3 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_

**Rejections based on Prior Art**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 27, 30, 31, 33-35 and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Darnand (5,100,317).

Darnand discloses a stone member 13, 14 corresponding to a portion of a patient's gum line, a single piece encasement member 6 having a dental model support surface 7, an opposing opposite surface to the support surface 7 with a continuous wall there between. The wall forms a cavity in which the stone member is cast and a structure 21 within the cavity that fixedly retains the stone member within the cavity (note particularly, column 4, lines 25-29). The wall outer surface includes a hemispherical concavity 10 for receiving a connector.

In response to the rejection of claim 27, applicant states that the recess 10 of Darnand is for receiving the point of a screw and then concludes it does not meet the limitation. It is unclear to the examiner how applicant has come to his conclusion. The examiner is of the position that the Darnand conical recess reasonably meets the hemispherical concavity limitation.

In regard to claim 30, 31, 33-35 the Darnand device is capable of being connected to an articulator through a ball and socket joint adhesively secured to its outer wall.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 27, 30-35, 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Darnand (US 5,100,317) in view of Westdyk (US 5,360,337) and Ferrell (US 5,007,829).

In Darnand, the encasement member 6 includes a conical recess 10 for receiving truncated cone 11 which secures the encasement member 6 to attachment plate 3, rather than a spherical recess socket that receives a ball for holding the encasement member in place as required by the present claims. Westdyk (spherical ball 58 received in socket 74) and Farrell (spherical ball 31 in socket) teach the conventional use of prior art ball and socket attachments between encasement members and attachment plates. To have merely replaced the truncated cone 11 and conical recess 10 with a conventional prior art ball and socket connection which is taught to be commonly used in the art by Westdyk and Farrell would have been obvious to one of ordinary skill in the art as a substitution of one known commonly used connection means for another.

Claims 27, 30, 31 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Darnand (US 5,100,317) in view of Huffman (US 4,548,581).

In Figures 7 and 8, Darnand teaches the use of the encasement member with stone model in an articulator that appears to provide for only a simple hinged movement

about a single axis. Huffman, however, teaches that by providing for a slot 54, 60 in the attachment plate that tongued member 52, 58 with articulator ball and socket may be attached that allows for more accurate positioning of the tooth models with respect to one another in an articulator. To have provided the Darnand attachment plate 3 with a slot so that a tongued ball and socket articulator member may be attached which allows for more accurate positioning of the models as taught by Huffman would have been obvious to one of ordinary skill in the art. In regard to claim 14, Huffman teaches the conventional articulation of a full arch. To have modified the Darnand device to provide for a model of a full arch as taught by Huffman so that the whole jaw member may be observed would have been obvious to one of ordinary skill in the art.

Claims 1, 2, 4-7, 10, 12-18, 20, 21, 23, 24, 26, 39, 43 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Darnand (US 5,100,317) in view of Marshall et al (US 3,702,027).

In Darnand a recess 21 is provided in the encasement member 6 anchor the plaster model to the encasement (column 4, lines 25-28) rather than the claimed projection. Projections for anchoring plaster stone members to encasement members are known, however, as taught by Marshall et al at 60. Merely, substituting one known prior art surface irregularity (a projection) for another known prior art surface irregularity (recess) for securing the plaster within the encasement member would have been obvious to one of ordinary skill in the art.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Darnand (US 5,100,317) in view of Marshall et al (US 3,702,027) as applied above with respect to claim 21 in further view of Dew (US 3,436,827).

Dew teaches constructing such encasement members of transparent plastic so that the model may be visually checked (see column 5, line 75- column 6, line 9). To have made the Darnand encasement member of a transparent plastic so that the model may be visually checked as taught by Dew would have been obvious to one of ordinary skill in the art.

Claims 8, 9, 19, 25, 28, 29, 40 and 52-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Darnand (US 5,100,317) in view of Marshall et al (US 3,702,027) as applied above with respect to claim 21 in further view of Huffman (US 4,548,581).

In Figures 7 and 8, Darnand teaches the use of the encasement member with stone model in an articulator that appears to provide for only a simple hinged movement about a single axis. Huffman, however, teaches that by providing for a slot 54, 60 in the attachment plate that tongued member 52, 58 with articulator ball and socket may be attached that allows for more accurate positioning of the tooth models with respect to one another in an articulator. To have provided the Darnand attachment plate 3 with a slot so that a tongued ball and socket articulator member may be attached which allows for more accurate positioning of the models as taught by Huffman would have been obvious to one of ordinary skill in the art.

Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Darnand (US 5,100,317) in view of Dew (US 3,436,827).

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Dew teaches constructing such encasement members of transparent plastic so that the model may be visually checked (see column 5, line 75- column 6, line 9). To have made the Darnand encasement member of a transparent plastic so that the model may be visually checked as taught by Dew would have been obvious to one of ordinary skill in the art.

Claims 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Darnand (US 5,100,317) in view of Jinoian et al (US 4,957,435).

In Darnand it is unclear what keeps the plaster 13 from leaking out of the bottom of encasement member when the wet plaster is being cured. The ordinarily skilled artisan, however, would readily recognize that it would be beneficial to have provided for some sort of attached bottom to prevent the leakage. Jinoian et al teach the use of a temporary bottom plate 13 for keeping the plaster within an encasement member. To have provided the Darnand encasement member with a temporarily attached base to prevent the plaster from leaking out as taught by Jinoian et al would have been obvious to one of ordinary skill in the art.

#### **Allowable Subject Matter**

Claims 45 and 47-50 are allowed.

#### **Action Made Final**

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication should be directed to **Ralph Lewis** at telephone number **(571) 272-4712**. Fax (703) 872-9306. The examiner works a compressed work schedule and is unavailable every other Friday. The examiner's supervisor, Kevin Shaver, can be reached at (571) 272-4720.

R.Lewis  
June 29, 2005

  
**Ralph A. Lewis**  
**Primary Examiner**  
*Ac3732*